



SDI Review Form 1.6

PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	MS: 2012/BJAST/2826
Title of the Manuscript:	Cherenkov Effect in ionospheric E layer plasma for Oxygen-ion.

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



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PART 2: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	1. Line 20. Citation: "Cherenkov radiation is an electromagnetic Radiation that occurs in completely clear medium." Actually, Cherenkov radiation can be generated in absorbing medium as well. 2. Line 23. Citation: "generally speaking this radiation is in the UV range of emission". Actually, Cherenkov radiation can be generated in any frequency range, depending on the particle velocity and properties of medium. 3. The part "Introduction" consists well known results from the theory of Cherenkov radiation. This is misplaced for original paper. 4. The similar criticism can be done concerning the part "Equations" devoted to hydrodynamic theory of waves in plasma. This theory is considered in many books. If authors results coincide with known results, the analysis can be replaced with correspond references. If author's results differ from known ones, the comparison should be done. 5. The manuscript includes a lot of substitutions of numerical values in formulae. I think that it is enough to show the final results only. 6. The figures do not look well. Many symbols and numbers in figures are not distinct.	1- I corrected this as : "Cerenkov radiation is an electromagnetic Radiation that occurs in different medium depending on the physical properties of the medium". 2-I corrected also this as "generally speaking in most cases this Radiation is in the UV range of emission depending on the particles velocity and yet again the properties of the medium." 3-in my paper this part is a rewrited part from reference [1], and it is o.k. 4-i thinks that these equations are completely needed. 5- If some ones need to know more about the trend of calculation these equation are needed all.



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Minor REVISION comments	Authors refer repeatedly to the reference "[1],[2],[3],[4],[5],[6]" but do not mention known books in the area of Cherenkov radiation. For example: 1. Jelley J.V. Cerenkov radiation and its application (London, Pergamon press, 1958). 2. Zrelov V.P. Vavilov-Cherenkov Radiation in High-Energy Physics (Moscow, 1968 - Russian; Jerusalem, 1970 - English). 3. Afanasiev G.N. Vavilov-Cherenkov and Synchrotron Radiation. Foundations and Applications. Kluwer Academic Publishers, 2004.	1-the author only mentioned the books and references that used in the text.
Optional/General comments	I think that the main conclusion of authors is that the velocity of ions is more than the phase velocity of certain wave in the E layer. Therefore ions can generate Cherenkov radiation. This result has a scientific interest. I cannot recommend publishing the manuscript in the presented form because of essential defects. However authors could present an essentially shorter work taking into account the criticisms mentioned above.	1- This is completely true.